

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS:

1. (Currently amended) A method of controlling frequency hopping wireless communication between first and second frequency hopping wireless communication devices, comprising:

the first device obtaining quality measurements respectively associated with frequencies that have been previously used by the second device to transmit information to the first device via a wireless communication link;

the first device selecting, based on the quality measurements, one of the frequencies for transmission of a selected upcoming communication from the first device to the second device; and

the first device transmitting to the second device via the wireless communication link information indicative of the frequency that has been selected for transmission of the selected communication; and

the second device transmitting information to the first device if the second device received the transmission from the first device indicating the frequency selected for transmission of the communication.

2. (Original) The method of Claim 1, including the first device obtaining a further plurality of quality measurements respectively associated with a further plurality of frequencies that have been used previously by the second device to transmit information to the first device via the wireless communication link, the first device selecting, based on the

further plurality of quality measurements, one of said further plurality of frequencies for transmission of a further upcoming communication from the first device to the second device, and the first device using the frequency selected in the first-mentioned selecting step to transmit the selected communication to the second device via the wireless communication link and including within the selected communication information indicative of the frequency that has been selected for transmission of the further communication.

~~9~~ 3. (Previously presented) A method of controlling frequency hopping wireless communication between first and second frequency hopping wireless communication devices, comprising:

the first device obtaining quality measurements respectively associated with frequencies that have been previously used by the second device to transmit information to the first device via a wireless communication link;

the first device selecting, based on the quality measurements, one of the frequencies for transmission of a selected upcoming communication from the first device to the second device; and

the first device transmitting to the second device via the wireless communication link information indicative of the frequency that has been selected for transmission of the selected communication and the second device transmitting to the first device via the wireless communication link a request for the first device to transmit the selected communication on a frequency other than the frequency selected by the first device for transmission of the selected communication.

~~10~~ 4. (Original) The method of Claim ~~3~~ ⁹, wherein said step of transmitting a request includes the second device using said frequency other than the selected frequency to transmit the request.

~~11~~ 5. (Original) The method of Claim ~~3~~⁹, including, responsive to said request, the first device using said frequency other than the selected frequency for transmission of the selected communication unless a predetermined condition exists, and if so, the first device using the selected frequency for transmission of the selected communication.

~~12~~ 6. (Original) The method of Claim ~~5~~¹¹, including the first device detecting, based on said request transmitting step, whether the predetermined condition exists.

~~13~~ 7. (Original) The method of Claim ~~6~~¹², wherein said detecting step includes the first device detecting whether error detection information associated with said request is incorrect, and wherein the predetermined condition exists when the error detection information associated with said request is incorrect.

~~3~~ 8. (Original) The method of Claim 1, wherein the selected frequency is a frequency other than a normal frequency normally specified for the selected communication by a frequency hopping pattern associated with the first device.

~~4~~ 9. (Original) The method of Claim 1, wherein the first device and the second device are, respectively, Bluetooth slave and master devices.

~~15~~ 10. (Currently amended) A method of controlling frequency hopping wireless communication between first and second frequency hopping wireless communication devices, comprising:

the first device obtaining quality measurements respectively associated with frequencies that have been previously used by the second device to transmit information to the first device via a wireless communication link;

the first device selecting, based on the quality measurements, one of the frequencies for transmission of a selected upcoming communication from the first device to the second device;

the first device transmitting to the second device via the wireless communication link information indicative of the frequency that has been selected for transmission of the selected communication; and

~~The method of Claim 1, including~~ the second device determining that a first frequency of a frequency hopping pattern associated with transmissions by the second device is better than a second frequency of the frequency hopping pattern for transmission of a further selected communication from the second device to the first device via the wireless communication link, wherein the second frequency is specified by the frequency hopping pattern for the further selected communication and the first frequency is specified by the frequency hopping pattern for a communication from the second device to the first device that most closely precedes the further selected communication and, responsive to said determining step, the second device using said most closely preceding communication and the first frequency to inform the first device that the second device will deviate from the frequency hopping pattern and use the first frequency for transmission of the further selected communication instead of the second frequency and, responsive to said informing step, the first device receiving the further selected communication via the wireless communication link on the first frequency.

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11. (Original) The method of Claim 10, wherein said determining step includes considering information indicative of potential interference at the first frequency and at the second frequency.

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12. (Original) The method of Claim 11, wherein said determining step includes determining that an interferer is operating at the second frequency.

13. (Original) The method of Claim 1, including the first device transmitting the selected communication on the selected frequency, and the second device receiving the selected communication on the selected frequency.

14. (Original) The method of Claim 3, including the second device determining that the information indicative of the selected frequency has not been received correctly at the second device, said step of transmitting a request including the second device transmitting the request in response to a determination that the information indicative of the selected frequency has not been received correctly.

15. (Currently amended) A frequency hopping wireless communication apparatus, comprising:

a frequency selector having an input for receiving quality measurements associated with frequencies that have been previously used to receive, via a wireless communication link, information transmitted by a further frequency hopping wireless communication apparatus, said frequency selector operable for selecting, based on said quality measurements, one of said frequencies for transmission of a selected upcoming communication to the further apparatus; and

a wireless communication interface coupled to said frequency selector for transmitting to the further apparatus via the wireless communication link information indicative of the frequency that has been selected for transmission of the selected communication and for receiving information transmitted to said wireless communication apparatus via the selected frequency, if the further apparatus received the transmission from the wireless communication apparatus indicating the frequency selected for transmission of the communication, and a frequency selected by the further apparatus if the further apparatus did not receive the transmission from the wireless communication apparatus indicating the frequency selected for transmission of the communication.

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16. (Previously presented) A frequency hopping wireless communication apparatus, comprising:

a frequency selector having an input for receiving quality measurements associated with frequencies that have been previously used to receive, via a wireless communication link, information transmitted by a further frequency hopping wireless communication apparatus, said frequency selector operable for selecting, based on said quality measurements, one of said frequencies for transmission of a selected upcoming communication to the further apparatus; and

a wireless communication interface coupled to said frequency selector for transmitting to the further apparatus via the wireless communication link information indicative of the frequency that has been selected for transmission of the selected communication and operable for receiving from the further apparatus via the wireless communication link a request to transmit the selected communication on a frequency other than the frequency that has been selected for transmission of the selected communication.

~~25~~ ~~24~~
17. (Original) The apparatus of Claim 16, wherein said wireless communication interface is further for receiving said request on said frequency other than the selected frequency.

~~26~~ ~~24~~
18. (Original) The apparatus of Claim 16, including logic having an input coupled to said wireless communication interface for receiving therefrom said request, said logic having a further input for receiving information indicative of whether a predetermined condition exists, said logic operable for determining that said frequency other than the selected frequency should be used for transmission of the selected communication unless said predetermined condition exists, said logic operable for determining that the selected frequency should be used for transmission of the selected communication if said predetermined condition exists.

~~27~~ 19. (Original) The apparatus of Claim ~~18~~ ²⁶, wherein said information indicative of whether a predetermined condition exists includes information indicative of whether error detection information associated with said request is incorrect, and wherein said predetermined condition exists when the error detection information associated with said request is incorrect.

~~28~~ 20. (Currently amended) A frequency hopping wireless communication apparatus, comprising:

a frequency selector having an input for receiving quality measurements associated with frequencies that have been previously used to receive, via a wireless communication link, information transmitted by a further frequency hopping wireless communication apparatus, said frequency selector operable for selecting, based on said quality measurements, one of said frequencies for transmission of a selected upcoming communication to the further apparatus;

a wireless communication interface coupled to said frequency selector for transmitting to the further apparatus via the wireless communication link information indicative of the frequency that has been selected for transmission of the selected communication. ~~The apparatus of Claim 15,~~ wherein said wireless communication interface is further for receiving from the further apparatus via the wireless communication link information indicative of a determination by the further apparatus that a first frequency of a frequency hopping pattern associated with transmissions by the further apparatus is better than a second frequency of the frequency hopping pattern for transmitting a further selected communication from the further apparatus to said apparatus via the wireless communication link, wherein the second frequency is specified by the frequency hopping pattern for the further selected communication and the first frequency is specified by the frequency hopping pattern for a communication from the further apparatus to said apparatus that most closely precedes the further selected communication, and including an indicator coupled to said wireless communication interface and responsive to said information indicative of said

determination for indicating to said wireless communication interface that the further apparatus will deviate from the frequency hopping pattern and use the first frequency for transmission of the further selected communication instead of the second frequency.

~~19~~ 21. (Original) The apparatus of Claim 15, provided as a Bluetooth slave device.

~~20~~ 22. (Original) The apparatus of Claim 15, provided in a mobile phone unit of a cordless phone system.

~~27~~ 23. (Currently amended) A frequency hopping wireless communication apparatus, comprising:

a wireless communication interface for receiving via a wireless communication link from a further frequency hopping wireless communication apparatus information indicative of a frequency that has been selected for transmission of a selected communication from the further apparatus to said apparatus, said frequency having been selected by the further apparatus from a plurality of frequencies based on quality measurements respectively associated with said frequencies, said frequencies having been previously used by said apparatus to transmit information to the further apparatus via the wireless communication link; and

an indicator coupled to said wireless communication interface and responsive to said information for indicating to the wireless communication interface that the selected frequency is to be used for receiving the selected communication via the wireless communication link if the wireless communication interface received the selected frequency from the further apparatus, and a frequency selected by the wireless communication apparatus if the wireless communication apparatus did not receive the transmission from the further apparatus.

~~30~~ 24. (Original) The apparatus of Claim ~~23~~²⁷, including a determiner for determining that a first frequency of a frequency hopping pattern associated with transmissions by said apparatus is better than a second frequency of the frequency hopping pattern for transmission of a further selected communication to the further apparatus via the wireless communication link, wherein the second frequency is specified by the frequency hopping pattern for the further selected communication and the first frequency is specified by the frequency hopping pattern for a communication to the further apparatus that most closely precedes the further selected communication, said wireless communication interface coupled to said determiner and responsive to a determination that the first frequency is better than the second frequency for using said most closely preceding communication and the first frequency to inform the further apparatus via the wireless communication link that the frequency hopping pattern will be deviated from in order to use the first frequency for transmission of the further selected communication instead of the second frequency.

~~31~~ 25. (Original) The apparatus of Claim ~~23~~²⁹, provided as a Bluetooth master device.

~~32~~ 26. (Original) The apparatus of Claim ~~23~~²⁹, provided in a base unit of a cordless phone system.

Please add the following new claims:

~~6~~ 27. (New) The method of Claim 1, wherein the frequency selected by the first device is the best available frequency according to a predetermined selection criteria.

~~7~~ 28. (New) The method of Claim 1, wherein the frequency selected by the second device is the most current second device to first device frequency.

~~8~~
29. (New) The method of Claim 1, wherein the second device can overrule the frequency selection made by the first device.

~~21~~ ~~18~~
30. (New) The apparatus of Claim 15, wherein the frequency selected by the wireless communication apparatus is the best available frequency according to a predetermined selection criteria.

~~22~~ ~~18~~
31. (New) The method of Claim 15, wherein the frequency selected by the further apparatus is the most current second device to wireless communication apparatus device frequency.

~~23~~ ~~18~~
32. (New) The method of Claim 15, wherein the further apparatus can overrule the frequency selection made by the wireless communication apparatus.

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33. (New) The apparatus of Claim 23, wherein the frequency selected by the further apparatus is the best available frequency according to a predetermined selection criteria.

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34. (New) The method of Claim 23, wherein the frequency selected by the further apparatus is the most current frequency hopping wireless communication apparatus to further apparatus frequency.

~~27~~
35. (New) The method of Claim 23, wherein the wireless communication apparatus can overrule the frequency selection made by the further apparatus.